

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-3 are currently pending in the present application, the specification having been amended, and Claims 1-3 having been amended by way of the present amendment. No new matter has been added.¹

In the outstanding Office Action, Claims 1-2 were rejected under 35 U.S.C. § 102(b) as anticipated by Rape (U.S. Pat. No. 2,184,166, hereinafter “Rape”); and Claim 3 was rejected under 35 U.S.C. § 102(b) as anticipated by Heywood (U.S. Pat. No. 2,051,711, hereinafter “Heywood”).

Regarding the rejection of Claims 1 and 2 under 35 U.S.C. § 102(b) as being anticipated by Rape, Applicants respectfully traverse the rejection.

Claim 1 defines an envelope for recovering a used recording liquid cartridge including an inner layer made of material capable of absorbing recording liquid, wherein the material capable of absorbing recording liquid is tissue paper, and an outer layer made of water resistant material, wherein the water resistant material is polyethylene. Claim 2 defines an envelope for recovering a used recording liquid cartridge including an inner layer made of material capable of absorbing recording liquid...wherein the material capable of absorbing recording liquid is tissue paper, and a middle layer made of water resistant material, wherein the water resistant material is polyethylene.

The outstanding Office Action cites “intermediate layer or film 3” of Rape as corresponding to the claimed “water resistant material,” and cites “laminating sheet 1” of

¹ Applicants submit that the material being inserted in the specification is material that has been previously incorporated by reference on page 11 of the present application. Specifically, the material is supported on page 4 of Japanese Application No. JPA 2003-381624, filed on November 11, 2003, at paragraph [0018]. A verification of the translation thereof is filed herewith, and, for the examiner’s convenience, a computer-generated English Translation of JPA 2003-381624 is also attached. The amendments to Claims 1 and 2 find support in Applicants’ specification at least on page 7, line 20 through page 8, line 1. The amendments to Claim 3 find support at least in Applicants’ Figs. 4 and 5.

Rape as corresponding to the claimed “inner layer.” The Office Action asserts that is located on the exterior surface of the absorbent, inner layer (1).”

Rape is directed to a container for explosives. According to Rape, the water resistant material “permits a much lighter weight package being used, while still maintaining high water or moisture resistance.”² In other words, Rape intends for there to be no moisture remaining inside of the package. Therefore, the inner layer of the package in Rape is a material which is not capable of absorbing any liquid. Accordingly, “laminating sheet 1” of Rape is not absorbent, as alleged in the Office Action. That is, Rape does not disclose an inner layer made of material capable of absorbing recording liquid, wherein the material capable of absorbing recording liquid is tissue paper. Additionally, Rape is silent regarding an outer layer made of polyethylene.

Hence, Rape does not disclose or suggest “an inner layer made of material capable of absorbing recording liquid; and an outer layer made of water resistant material, wherein the material capable of absorbing recording liquid is tissue paper, the water resistant material is polyethylene,” as recited in Claim 1. Similarly, Rape does not disclose or suggest “an inner layer made of material capable of absorbing recording liquid; a middle layer made of water resistant material..., wherein the material capable of absorbing recording liquid is tissue paper, the water resistant material is polyethylene,” as recited in Claim 2.

M.P.E.P. § 2131 requires for anticipation that each and every feature of the claimed invention must be shown in as complete detail as is contained in the claim. Therefore, for all of the above reasons, Rape does not disclose or suggest “an envelope for recovering a used recording liquid cartridge,” as defined in Claim 1 and Claim 2.

Accordingly, Applicants respectfully request that the rejection of Claims 1 and 2 under 35 U.S.C. § 102 be withdrawn.

² See the second column of page 1, lines 33-35, of Rape.

Regarding the rejection of Claim 3 under 35 U.S.C. § 102(b) as being anticipated by Heywood, Applicants respectfully traverse the rejection.

Amended Claim 3 recites “an outer edge portion of a front part only of the main body is continuously extended over the reference line at both sides of the sealing portion *so that a center portion of the front part of the main body is not folded when the foldable sealing portion and the outer edge portion of the main body are folded at the reference line.*”³

Heywood is directed to a safety fold envelope. Fig. 2 of Heywood shows a rear view of a safety fold envelope, indicating a line 4a that is used as a folding line of the safety fold envelope. In Heywood, when the safety fold envelope is folded at the folding line 4a, a narrow ungummed zone 7 of a side flap 2 is also folded, since the narrow ungummed zone 7 is beyond the folding line 4a. According to Heywood, both the front and the rear walls are double (“safety”) folded.⁴ Hence, Heywood does not disclose or suggest “a center portion of the front part of the main body is not folded when the foldable sealing portion and the outer edge portion of the main body are folded at the reference line,” as recited in Claim 3.

M.P.E.P. § 2131 requires for anticipation that each and every feature of the claimed invention must be shown in as complete detail as is contained in the claim. Therefore, for all of the above reasons, Heywood does not disclose or suggest “an envelope for recovering a used recording liquid cartridge,” as defined in Claim 3.

Accordingly, Applicants respectfully request that the rejection of Claim 3 under 35 U.S.C. § 102 be withdrawn.

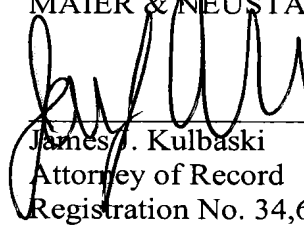
³ Emphasis added.

⁴ See the second column on page 1, lines 4-18, of Heywood.

Consequently, in view of the present amendment and in light of the above discussions, the outstanding grounds for rejection are believed to have been overcome. The application as amended herewith is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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VERIFICATION OF TRANSLATION

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

I, Hironori Tsukamoto
residing at 3 Captain Parker Arms, #11, Lexington, MA 02421

declare:

- 1) that I know well both the Japanese and English languages;
- 2) that I translated, from Japanese into English, paragraph [0018] on page 4 of the JPO Application No. JPA 2003-381624, filed on November 11, 2003;
- 3) that the attached English translation is a true and accurate translation of paragraph [0018] on page 4 of the Japanese Application No. JPA 2003-381624, filed on November 11, 2003, to the best of my knowledge and belief; and
- 4) that all statements made of my own knowledge are true and that all statements made on information and belief are believed to be true.

Date: March 23, 2009

Signature: H. Tsukamoto

The following is a translation of paragraph [0018] on page 4 of the JPO Application No. JPA 2003-381624, filed on November 11, 2003:

As shown in FIG. 3, the envelope 1 may have a three-layer structure having an inner layer 21, a middle layer 22 and an outer layer 23. The inner layer 21 is made of material capable of absorbing ink, for example tissue paper. The middle layer 22 is made of water resistant material, for example PE. The inner layer 21 and the middle layer 22 are heat sealed for example. The outer layer 23 is made of material allowing writing thereon, for example, craft paper, and is stuck to the middle layer 22.

PATENT ABSTRACTS OF JAPAN

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(71)Applicant : RICOH CO LTD
MARUBISHI SHIKO CO LTD

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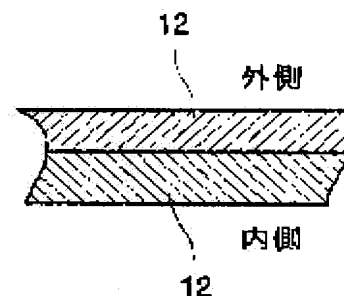
(72)Inventor : HIRUMA TETSUYA
KIKUCHI KIYOTAKA

(54) ENVELOPE FOR RECOVERING RECORDING LIQUID CARTRIDGE

(57)Abstract:

PROBLEM TO BE SOLVED: To provide an envelope for recovering a recording liquid cartridge, which facilitates the return of the cartridge by a user and prevents the cartridge from soiling other transported articles when the cartridge is recovered using a means of transportation.

SOLUTION: The envelope 1 has a two-layer structure consisting of an inner layer 11 capable of absorbing the recording liquid and an outer layer 12 having waterproofness, or has a three-layer structure consisting of an inner layer 21 capable of absorbing the recording liquid, an intermediate layer 22 having waterproofness, and a writable outer layer 23. The envelope 1 has a sealing part 3, and a part 5 of an envelope body 2 is extended across a reference line 4 to form both ends of the sealing part 3, which prevents a leak of the liquid from the enclosed ink cartridge 101 to the outside.



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CLAIMS

[Claim(s)]

[Claim 1]

An envelope for recording fluid cartridge recovery, wherein it is an envelope for recovery for collecting used recording fluid cartridges, and this envelope has a inner layer and an outer layer at least, said inner layer is the construction material which can absorb recording ink and said outer layer is construction material which has a water resisting property.

[Claim 2]

It is an envelope for recovery for collecting used recording fluid cartridges, An envelope for recording fluid cartridge recovery, wherein this envelope has a inner layer, an interlayer, and an outer layer at least, said inner layer is the construction material which can absorb recording ink, said interlayer is construction material which has a water resisting property and said outer layer is the construction material notes of can be taken.

[Claim 3]

An envelope for recording fluid cartridge recovery which is an envelope for recovery for collecting used recording fluid cartridges, and is characterized by this envelope's having a sealed part which closes an opening by bending, and forming some envelope bodies in both ends of a sealed part continuously exceeding a bend line.

[Translation done.]

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DETAILED DESCRIPTION

[Detailed Description of the Invention]

[Field of the Invention]

[0001]

This invention relates to the envelope for recovery of the recording fluid cartridge for collecting the recording fluid cartridges used in the image forming device which uses recording ink, such as an ink-jet recording device.

[Background of the Invention]

[0002]

The ink-jet recording device which uses the ink which is recording ink, for example as image forming devices, such as a printer, a facsimile, reproducing units, and these composite machines, is known. In such an ink-jet recording device, it can equip now with the ink cartridge which is a recording fluid cartridge for supplying ink to a recording head exchangeable.

[0003]

In this case, although it was general that a used ink cartridge was discarded under a user as it is as for old, recovery of a used cartridge is performed by rise of the consideration to effective use of resources and environment in recent years.

[0004]

As a recovery method of such a recording fluid cartridge, using the collection box for recycling is also known as indicated by the patent documents 1, but in this method, there is inconvenient [that the user has to go to the place in which the collection box was installed].

[Patent documents 1] JP,2003-182804,A

[0005]

Then, since it is preferred that the recovery method which uses a postal transporting method is employable, What indicated the address for carrying out return recovery and the matter concerning transportation is used outside as a container of an ink cartridge as indicated by the patent documents 2, It changes into the state where the user sealed the ink feed opening and waste ink sucking mouth parts of this container by the sealing member, after use, and the method entrusted to transportation is also proposed.

[Patent documents 2] JP,5-30106,A

[Description of the Invention]

[Problem(s) to be Solved by the Invention]

[0006]

However, if it is in the recording fluid cartridge which printed the address etc. in the container of the cartridge itself in order to perform recovery by the transportation mentioned above, Return work is troublesome in order to soil a hand in ink, when a user seals an ink feed opening and waste ink sucking mouth parts by a sealing member.

[0007]

Especially when sealing is imperfect, the ink of an ink-jet recording device with high perviousness begins to permeate during transportation, and may soil other transportation things.

[0008]

In light of the above-mentioned problems, this invention is a thing.

The purpose is easy and is providing the envelope for recording fluid cartridge recovery to the exterior which permeated and prevented ****.

[Means for Solving the Problem]

[0009]

In order to solve the above-mentioned technical problem and to attain the purpose, an envelope for recording fluid cartridge recovery concerning this invention, It is an envelope for recovery for collecting used recording fluid cartridges, and this envelope has a inner layer and an outer layer at least, a inner layer is the construction material which can absorb recording ink, and an outer layer is considered as composition which is the construction material which has a water resisting property.

[0010]

An envelope for recording fluid cartridge recovery concerning this invention, This envelope has a inner layer, an interlayer, and an outer layer at least, it is an envelope for recovery for collecting used recording fluid cartridges, and an outer layer is considered [a inner layer is the construction material which can absorb recording ink an interlayer is construction material which has a water resisting property, and] as composition which is the construction material notes of can be taken.

[0011]

An envelope for recording fluid cartridge recovery concerning this invention, It is an envelope for recovery for collecting used recording fluid cartridges, and this envelope has a sealed part which closes an opening by bending, and some envelope bodies consider it as composition currently formed continuously exceeding a bend line in both ends of a sealed part.

[Effect of the Invention]

[0012]

According to the envelope for recording fluid cartridge recovery concerning this invention, have a inner layer and an outer layer at least, and a inner layer is the construction material which can absorb recording ink, and since an outer layer is construction material which has a water resisting property, Even if liquid leakage arises from the recording fluid cartridge enclosed with the inside, while it is prevented, and it being absorbed by a inner layer and beginning to permeate outside puts in a used recording fluid cartridge, it should just carry out ** and the workability of return work improves, soiling other transportation things during transportation is lost.

[0013]

Since according to the envelope for recording fluid cartridge recovery concerning this invention it had a inner layer, an interlayer, and an outer layer at least, and the inner layer was the construction material which can absorb recording ink, an interlayer is construction material which has a water resisting property and the outer layer was considered as the composition which is the construction material notes of can be taken, It being absorbed by a inner layer and beginning to permeate outside, even if liquid leakage arises from the recording fluid cartridge enclosed with the inside is prevented, While what is necessary is just to put in a used recording fluid cartridge and to carry out ** and the workability of return work improves, during transportation, soiling other transportation things is lost, and, moreover, an address etc. can be easily printed or written down on an outside surface.

[0014]

Since according to the envelope for recording fluid cartridge recovery concerning this invention it has a sealed part which closes an opening by bending and some envelope bodies are continuously formed in the both ends of a sealed part exceeding the bend line, Recording ink can be prevented from leaking outside from the crevice formed in the portion which bent the sealed part when liquid leakage arose from the recording fluid cartridge enclosed with the inside by capillarity, While what is

necessary is just to put in a used recording fluid cartridge and to carry out ** and the workability of return work improves, soiling other transportation things during transportation is lost.

[Best Mode of Carrying Out the Invention]

[0015]

Hereafter, an embodiment of the invention is described with reference to an accompanying drawing. The partial expansion strabism explanatory view of an enclosed pipe and drawing 5 of the general-view strabism explanatory view of the envelope for recording fluid cartridge recovery which drawing 1 requires for this invention, the section explanatory view in which drawing 2 shows an example of the structure of an enclosed pipe, the section explanatory view showing the example of everything [drawing 3] but the structure of an enclosed pipe, and drawing 4 are the flat-surface explanatory views of an enclosed pipe.

[0016]

This envelope 1 for recording fluid cartridge recovery is for collecting the ink cartridges 101 which are used recording fluid cartridges. as this envelope 1 is shown in drawing 2, are the two-layer structure of the inner layer 11 and the outer layer 12, and form the inner layer 11 according to the construction material which can absorb ink (material), for example, tissue paper, and it forms the outer layer 12 with the construction material which has a water resisting property (material), for example, PE, -- the inner layer 11 and the outer layer 12 -- for example, thermal melting arrival is carried out.

[0017]

Even when ink should have begun to permeate from the used ink cartridge 101 into which it was put inside the envelope 1 by considering it as such a two-layer structure, Since the inner layer 11 retains water, the outer layer 12 has a water resisting property and the ink which the inner layer 11 absorbed is not made to penetrate outside, it becomes without soiling other transportation things during transportation. It can prevent it being torn or damaging it, even if rain etc. hit during transportation etc. since the outer layer 12 has a water resisting property. The intensity of the inner layer 11 can be prevented from falling by water absorption of ink by unifying the inner layer 11 and the outer layer 11 by thermal melting arrival.

[0018]

The envelope 1 is a three-tiered structure of the inner layer 21, the interlayer 22, and the outer layer 23, as shown in drawing 3, The inner layer 21 is formed according to the construction material which can absorb ink (material), for example, tissue paper, The interlayer 22 forms with the construction material which has a water resisting property (material), for example, PE, the inner layer 21 and the interlayer 22 do thermal melting arrival, for example, and also he forms the outer layer 23 according to the construction material notes of can be taken (material), for example, kraft, and is sticking it on the interlayer 22.

[0019]

Since the interlayer 22 functions as said outer layer 12 similarly by considering it as such a three-tiered structure, while the same operation effect as the case of the above-mentioned two-layer structure is obtained, the information of the sender's address and name can write in the surface of the outer layer 23.

[0020]

As shown in drawing 4 and drawing 5, the envelope 1 is using trough folding and bending with the chip box base line 4, to a sealed part, and has the sealed part (sealing piece) 3 which closes the opening 2a of the envelope body (seat part) 2. And some envelope bodies 2 5 are continuously formed in the both ends of this sealed part 3 exceeding the bending base line 4. That is, some envelope bodies 2 5 turned up in the vertical direction to the chip box base line 4 by which trough folding is carried out break, and the base line 4 is formed as it is straddling. The adhesive side or the double-sided tape 6 for pasting up with the envelope body 2 is stuck on the sealed part 3.

[0021]

Therefore, as shown in drawing 6, when the sealed part 3 is folded and trough folding is carried out with the base line 4, at the both ends of the sealed part 3, some envelope bodies 2 5 will lap and the opening 2a will be in the state where marginal 2b of the direct envelope body 2 is not attended. Even if ink leakage arises from the ink cartridge 101 put in in the envelope 1 by this, leaking outside from between the sealed part 3 and the envelope bodies 1 will be prevented.

[0022]

That is, generally, according to capillarity, the place where a section is smaller is better and fluids, such as ink, permeate. For this reason, as shown in drawing 7, when some envelope bodies 2 5 cannot be found in the both ends of the sealed part 3. When the sealed part 3 is turned up with the chip box base line 4, a crevice is formed in A portion with the sealed part 3 and the envelope body 2, and such a part can consider it being transmitted to that and beginning to leak outside, even if it is a little ink, since ink permeates easilier than other portions. Leakage **** from the end of the sealed part 3 to the exterior can be prevented by extending and forming some envelope bodies 2 5 in the end of the sealed part 3 as the measure.

[0023]

Similarly, also about the pars basilaris ossis occipitalis of the envelope 1, it bends in the both ends of the sealed part 7, and some envelope bodies 2 9 are continuously formed exceeding the base line 8, the sealed part 7 is bent, and it is bending and closing by trough folding along the base line 8. Even if ink leaks from the ink cartridge 101 enclosed with the envelope 1 by this, it can prevent beginning to leak outside from the sealed part 3 of the envelope 1, or the end of 7 by capillarity.

[0024]

Next, an example of the ink cartridge 101 which was suitable for collecting using such an envelope 1 for recording fluid cartridge recovery is explained with reference to drawing 8 and drawing 9. This ink cartridge 101 is provided with the following.

The ink bag 102 filled up with ink.

The case 103 for storing this ink bag 102.

This case 103 comprises the 1st case 111, the 2nd case 112, and the 3rd case 113, constitutes the case portion used as the protective cover which protects the side of the ink bag 102 with the 1st case 111 and the 2nd case 112, and forms it in thin case shape as a whole.

[0025]

The attachment component 122 of the product [side / one] made of resin of the long side of the bag body 121 which has the flexibility of the approximately quadrangular shape (here rectangular form) which becomes the ink bag 102 from an aluminum laminate film is adhered (welding), This attachment component 122 is equipped with the ink outlet part 123 which closed the ink in the bag body 121 by elastic members, such as the sealing member in which the self-closure for supplying an image forming device body is possible, for example, isobutylene isoprene rubber etc.

[0026]

Thus, since the ink cartridge 101 is formed in the thin case shape which protected the outside of the ink bag 102 with the case 103, it becomes easy to put in in the envelope 1.

[Brief Description of the Drawings]

[0027]

[Drawing 1]It is a general-view strabism explanatory view of the envelope for recording fluid cartridge recovery concerning this invention.

[Drawing 2]It is a section explanatory view showing an example of the structure of an enclosed pipe.

[Drawing 3]It is a section explanatory view showing other examples of the structure of an enclosed pipe.

[Drawing 4]It is a partial expansion strabism explanatory view of an enclosed pipe.

[Drawing 5]It is a flat-surface explanatory view of an enclosed pipe.

[Drawing 6]It is an important section flat-surface explanatory view in the state where the enclosed

pipe was sealed.

[Drawing 7] It is an important section flat-surface explanatory view in the state where the envelope of the comparative example was sealed.

[Drawing 8] It is a strabism explanatory view showing an example of an ink cartridge.

[Drawing 9] It is an explanatory view showing an example of the ink bag of the ink cartridge.

[Description of Notations]

[0028]

1 -- Envelope

2 -- Envelope body (seat part)

3 -- Sealed part

4 -- Chip box base line

5 -- Some envelope bodies

101 -- Ink cartridge

102 -- Ink bag

103 -- Housing

[Translation done.]

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TECHNICAL FIELD

[Field of the Invention]

[0001]

This invention relates to the envelope for recovery of the recording fluid cartridge for collecting the recording fluid cartridges used in the image forming device which uses recording ink, such as an ink-jet recording device.

[Translation done.]

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PRIOR ART

[Background of the Invention]

[0002]

The ink-jet recording device which uses the ink which is recording ink, for example as image forming devices, such as a printer, a facsimile, reproducing units, and these composite machines, is known. In such an ink-jet recording device, it can equip now with the ink cartridge which is a recording fluid cartridge for supplying ink to a recording head exchangeable.

[0003]

In this case, although it was general that a used ink cartridge was discarded under a user as it is as for old, recovery of a used cartridge is performed by rise of the consideration to effective use of resources and environment in recent years.

[0004]

As a recovery method of such a recording fluid cartridge, using the collection box for recycling is also known as indicated by the patent documents 1, but in this method, there is inconvenient [that the user has to go to the place in which the collection box was installed].

[Patent documents 1] JP,2003-182804,A

[0005]

Then, since it is preferred that the recovery method which uses a postal transporting method is employable, What indicated the address for carrying out return recovery and the matter concerning transportation is used outside as a container of an ink cartridge as indicated by the patent documents 2, It changes into the state where the user sealed the ink feed opening and waste ink sucking mouth parts of this container by the sealing member, after use, and the method entrusted to transportation is also proposed.

[Patent documents 2] JP,5-30106,A

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EFFECT OF THE INVENTION

[Effect of the Invention]

[0012]

According to the envelope for recording fluid cartridge recovery concerning this invention, have a inner layer and an outer layer at least, and a inner layer is the construction material which can absorb recording ink, and since an outer layer is construction material which has a water resisting property, Even if liquid leakage arises from the recording fluid cartridge enclosed with the inside, while it is prevented, and it being absorbed by a inner layer and beginning to permeate outside puts in a used recording fluid cartridge, it should just carry out ** and the workability of return work improves, soiling other transportation things during transportation is lost.

[0013]

Since according to the envelope for recording fluid cartridge recovery concerning this invention it had a inner layer, an interlayer, and an outer layer at least, and the inner layer was the construction material which can absorb recording ink, an interlayer is construction material which has a water resisting property and the outer layer was considered as the composition which is the construction material notes of can be taken, It being absorbed by a inner layer and beginning to permeate outside, even if liquid leakage arises from the recording fluid cartridge enclosed with the inside is prevented, While what is necessary is just to put in a used recording fluid cartridge and to carry out ** and the workability of return work improves, during transportation, soiling other transportation things is lost, and, moreover, an address etc. can be easily printed or written down on an outside surface.

[0014]

Since according to the envelope for recording fluid cartridge recovery concerning this invention it has a sealed part which closes an opening by bending and some envelope bodies are continuously formed in the both ends of a sealed part exceeding the bend line, Recording ink can be prevented from leaking outside from the crevice formed in the portion which bent the sealed part when liquid leakage arose from the recording fluid cartridge enclosed with the inside by capillarity, While what is necessary is just to put in a used recording fluid cartridge and to carry out ** and the workability of return work improves, soiling other transportation things during transportation is lost.

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TECHNICAL PROBLEM

[Problem(s) to be Solved by the Invention]

[0006]

However, if it is in the recording fluid cartridge which printed the address etc. in the container of the cartridge itself in order to perform recovery by the transportation mentioned above, Return work is troublesome in order to soil a hand in ink, when a user seals an ink feed opening and waste ink sucking mouth parts by a sealing member.

[0007]

Especially when sealing is imperfect, the ink of an ink-jet recording device with high perviousness begins to permeate during transportation, and may soil other transportation things.

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In light of the above-mentioned problems, this invention is a thing.

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MEANS

[Means for Solving the Problem]
[0009]

In order to solve the above-mentioned technical problem and to attain the purpose, an envelope for recording fluid cartridge recovery concerning this invention, It is an envelope for recovery for collecting used recording fluid cartridges, and this envelope has a inner layer and an outer layer at least, a inner layer is the construction material which can absorb recording ink, and an outer layer is considered as composition which is the construction material which has a water resisting property.

[0010]

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An envelope for recording fluid cartridge recovery concerning this invention, It is an envelope for recovery for collecting used recording fluid cartridges, and this envelope has a sealed part which closes an opening by bending, and some envelope bodies consider it as composition currently formed continuously exceeding a bend line in both ends of a sealed part.

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[0027]

[Drawing 1]It is a general-view strabism explanatory view of the envelope for recording fluid cartridge recovery concerning this invention.

[Drawing 2]It is a section explanatory view showing an example of the structure of an enclosed pipe.

[Drawing 3]It is a section explanatory view showing other examples of the structure of an enclosed pipe.

[Drawing 4]It is a partial expansion strabism explanatory view of an enclosed pipe.

[Drawing 5]It is a flat-surface explanatory view of an enclosed pipe.

[Drawing 6]It is an important section flat-surface explanatory view in the state where the enclosed pipe was sealed.

[Drawing 7]It is an important section flat-surface explanatory view in the state where the envelope of the comparative example was sealed.

[Drawing 8]It is a strabism explanatory view showing an example of an ink cartridge.

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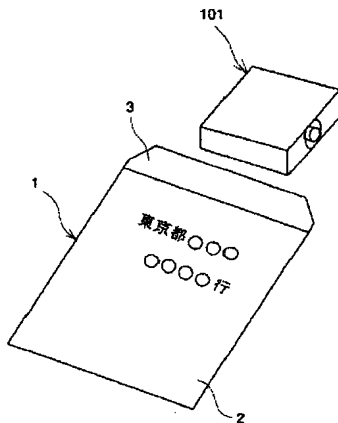
1.This document has been translated by computer. So the translation may not reflect the original precisely.

2.*** shows the word which can not be translated.

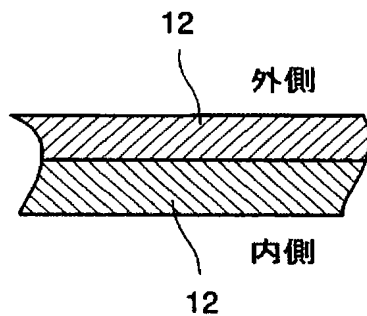
3.In the drawings, any words are not translated.

DRAWINGS

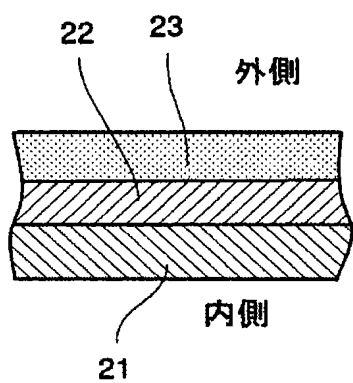
[Drawing 1]



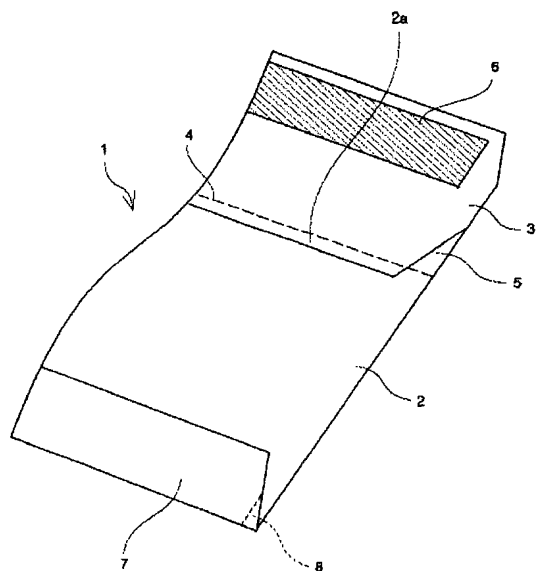
[Drawing 2]



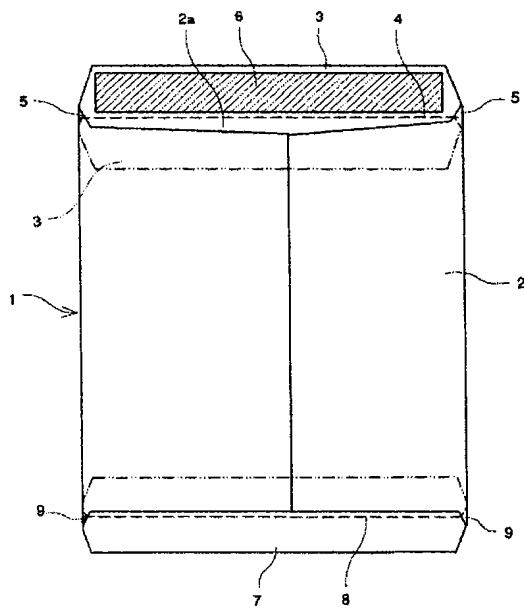
[Drawing 3]



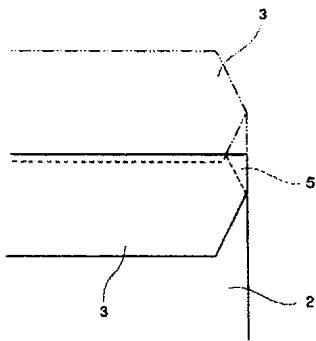
[Drawing 4]



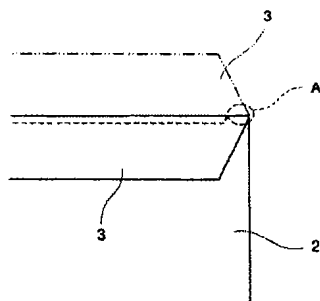
[Drawing 5]



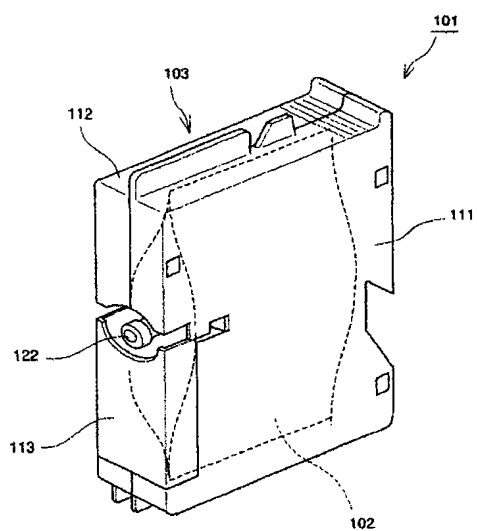
[Drawing 6]



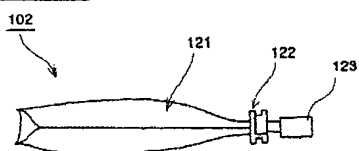
[Drawing 7]



[Drawing 8]



[Drawing 9]



[Translation done.]